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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,794	02/08/2001	Hiroshi Isono	108482	3978

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,794

Applicant(s)

ISONO ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,14 and 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-7 and 9-12 is/are allowed.
- 6) ☒ Claim(s) 8,14 and 16-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of the at least one pressure chamber and the two pressure chambers of the master cylinder as claimed in claim 14 and claim 18, the limitation of the master reservoir being larger than the pressure chamber as claimed in line 9 of claim 8, the limitation of the reservoir chamber being larger than the pressure chamber as claimed in lines 5-6 from the bottom of claim 9, and the limitation of bottoming condition detection based on an increasing gradient of the stroke as claimed in line 5 of claim 20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Examiner notes that element 14 represents the master cylinder in figure 1, however, there is no drawing and corresponding label associated with at least one pressure chamber of the master cylinder 14. Since the at least one pressure chamber of the master cylinder is not clearly shown, the limitations regarding the size of the pressure chamber with respect to the master reservoir and the reservoir chamber are not clearly shown. With regard to the showing of the bottoming condition detection based on an increasing gradient, Applicant directs Examiner's attention to figure 12b, however, it is noted that figure 12b simply shows a plot of stroke with respect to time and does not clearly show a correlation with bottoming condition detection as claimed.

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A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

3. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: in paragraph [0044] Applicant changed "normal condition or the small amount fluid leakage failure" to "normal condition (without the assist control". It is unclear to the Examiner as to what "assist control" Applicant is referring to. Clarification is required.

Claim Objections

4. Claims 14 and 22-29 are objected to because of the following informalities:

- In the last line of claim 14, for example, the phrase "the pressure chamber" should be changed to --the at least one pressure chamber—to maintain consistent terminology;

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- In line 6 of claim 22 "which determined" should be changed to --which determines-- to maintain consistent verb tense. The remaining claims are objected to due to their dependency from claim 22. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant previously claimed that the reservoir chamber (which is represented by element 114) was larger than the pressure chamber of the master cylinder. The current amendment to claim 8 now recites that the master reservoir (which is represented by element 136) is larger than the pressure chamber of the master cylinder. Since the drawings fail to clearly show the dimensions of a pressure chamber with respect to the master reservoir, Examiner maintains that the originally filed disclosure lacked support for the new recitation.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 14, 22-29 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 14. The phrase "the two pressure chambers" lacks proper antecedent basis in the claim.

Re: claims 22 and 30. The phrase "the brake" first claimed in but not limited to line 7 of claim 22 lacks proper antecedent basis. It is unclear to the Examiner whether Applicant intends to refer to the brake operating member or the brake device.

Re: claim 23. The phrase "a second predetermined amount" in line 4 is indefinite since no first predetermined amount was recited.

The remaining claims are indefinite due to their dependency from claim 22.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 22 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5951116 to Nagasaka et al.

Re: claims 22 and 30. Nagasaka et al. disclose a brake device having a fluid pressure source device 12 which generates a fluid pressure based on an operation

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state of a brake operating member 10, the brake device comprising: a fluid source pressure detector 72 as disclosed in line 26 of col. 20 which detects the pressure generated in the fluid pressure source device, and a failure determining device 33, particularly element 48 as disclosed in col. 20 lines 35-38 and in figures 11A and 11B which determines that there is a first failure (failure of sensor B which may represent the sensor 72) when a combination of the operation state of the brake based on the output of sensor A which may represent stroke sensor 71 and the fluid pressure based on the output of sensor B which may represent the master cylinder pressure sensor 72 is a first combination state (as set forth in steps SB3 and SB4 in figure 11A), and determines that there is a second failure (failure of sensor A which may represent the stroke sensor 71) being different from the first failure if the combination of the operation of the brake and the fluid pressure is a second combination state (as set forth in steps SB8 and SB 9 in figure 11A) being different from the first combination state.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5951116 to Nagasaka et al. in view of US Patent 4867509 to Maehara et al.

Re: claims 16, 17, 19, 20, and 21. Nagasaka et al. disclose a brake device

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having a fluid pressure source 12 which generates a fluid pressure based on an operation of a brake operating member 10, the brake device comprising: a brake operating amount detector or stroke sensor 71 described in col. 20 lines 25-26 which detects an operating amount of the brake operating member, a fluid source pressure detector or master cylinder pressure sensor 72 described in col. 20 line 26, a failure detector 33 which includes element 48 as described in col. 20 lines 35-38 which detects and distinguishes between different types of failures of the brake device (failure of sensor A or failure of sensor B) based on the pressure detected by the fluid source pressure detector or output of sensor B which represents the master cylinder pressure sensor 72 and the operating amount detected by the brake operating amount detector or output of sensor A which represents the stroke sensor 71, the fluid pressure source device including a master cylinder 12 which generates the fluid pressure corresponding to an input power, but does not disclose the failure detector including a bottoming detector which detects a bottoming condition in the master cylinder based on whether an increasing gradient of the brake operating amount detected by the brake operating amount detector is larger than a predetermined gradient.

Maehara et al. teach in col. 5 lines 28-32 the use of a brake device including a bottoming detector 55 which detects a bottoming condition in the master cylinder based on whether an increasing gradient or "stroke of movement" of the brake operating amount detected by the brake operating amount detector is larger than a predetermined amount. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the failure detector of Nagasaka et al. to have

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included a bottoming detector, as taught by Maehara et al., in order to provide a means of detecting a bottoming condition to indicate excessive stroke of movement of the brake operating member.

Re: claim 18. Nagasaka et al. show the limitation of the master cylinder having two pressure chambers to the same extent as Applicant and generates the fluid pressure corresponding to the input power, the brake device includes a front side brake 28c connected to one of the two pressure chambers and a rear brake 28a as shown in figure 1 connected to the other of the two pressure chambers, and the fluid source pressure detector including a front wheel side pressure detector 72 which detects the fluid pressure of the pressure chamber which is connected to the front side brake or a portion connected to a corresponding pressure chamber of the master cylinder.

Allowable Subject Matter

13. Claims 1, 3-7 and 9-12 are allowed. Nagasaka et al. show a first compressing device connection the master cylinder and the brakes via lines 30,31 and a second compressing device connecting the master reservoir 13 to the brakes via line 20a, however, the selection of the use of one of the compressing devices over the other is not based on the failure of sensor A and/or B but the electrical failure of the electrically controlled valves.

14. Claims 23-29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments filed 7/25/03 have been fully considered but they are not persuasive. Examiner maintains that the arguments with regards to the Maehara et al. reference are not persuasive. Examiner notes that Maehara et al. teach the use of a bottoming detection mechanism in which the stroke of movement of a brake pedal exceeding a predetermined value is monitored. Examiner maintains that the stroke of movement is the derivative or gradient of brake pedal position which is a brake operating amount.

16. Applicant's arguments with respect to the remaining rejected claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 10/23/03
mmb
October 23, 2003

M. C. Graham
10/23/2003
MATTHEW C. GRAHAM
PRIMARY EXAMINER
GROUP 310